

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

**MUS-60-0.00**

**PART 1**

**BLUE ROCK AND WAYNE TOWNSHIPS**

**MUSKINGUM COUNTY**

FOR PART 2, SEE MUS-60-0.29/0.89

**PROJECT DESCRIPTION**

PART 1 OF THIS PROJECT CONSISTS OF FULL DEPTH PAVEMENT REPLACEMENT AND WIDENING FOR APPROXIMATELY 8 MILES OF S.R. 60 IN MUSKINGUM COUNTY.

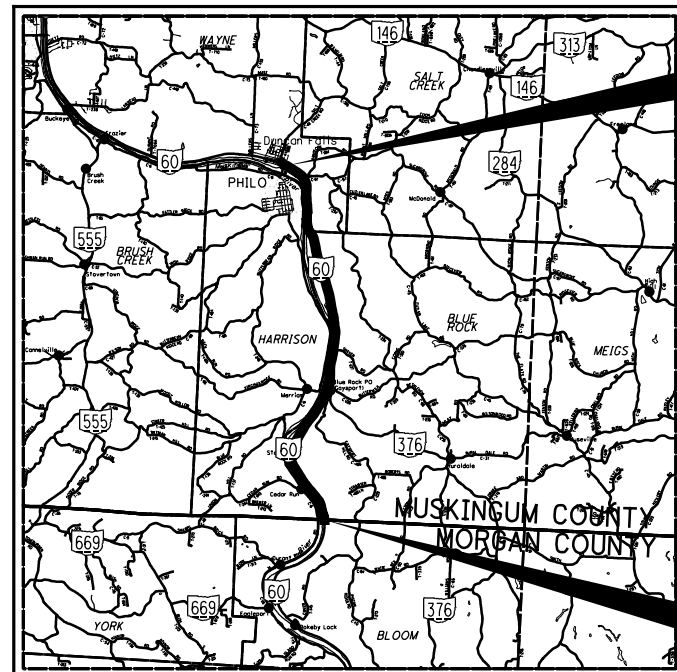
**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA: 51.0 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 7.9 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: 58.9 ACRES

**2019 SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

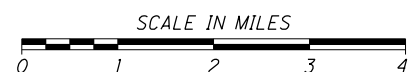


END PROJECT  
STA. 427+15.00  
S.L.M. 8.03

BEGIN PROJECT  
STA. 3+25.00  
S.L.M. 0.00

LOCATION MAP

LATITUDE: 39°48'55" LONGITUDE: 81°53'20"



PORTION TO BE IMPROVED	-----
INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	-----
STATE ROUTES	-----
COUNTY & TOWNSHIP ROADS	-----
OTHER ROADS	-----

**DESIGN DESIGNATION**

CURRENT ADT (2022)	3700
DESIGN YEAR ADT (2042)	3800
DESIGN HOURLY VOLUME (2042)	400
DIRECTIONAL DISTRIBUTION	0.59
TRUCKS (24 HOUR B&C)	13%
DESIGN SPEED	55 MPH
LEGAL SPEED	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
04 - MINOR ARTERIAL (RURAL)	
NHS PROJECT	NO

**ADA DESIGN WAIVER  
NONE REQUIRED**

**DESIGN EXCEPTIONS**

DESIGN FEATURE	APPROVAL DATES	SHEET NUMBERS
SHOULDER WIDTH	6/03/20	5-7
STOPPING SIGHT DISTANCE	6/03/20	33-38, 42, 62

**UNDERGROUND UTILITIES**

Contact Two Working Days Before You Dig



OHIO811, 8-1-1, or 1-800-362-2764 (Non-members must be called directly)

PLAN PREPARED BY:  
**CARPENTER MARTY** transportation  
6612 SINGLETREE DRIVE COLUMBUS, OH 43229  
614.556.2424 WWW.CMTRAN.COM

**INDEX OF SHEETS:**

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ENGINEERS SEAL:  
FOR STRUCTURES OVER 20' SPAN

SIGNED: Justin D. Reed  
DATE: 12/18/2020

ENGINEERS SEAL:  
FOR ENTIRE PLAN EXCEPT STRUCTURES OVER 20' SPAN

SIGNED: Tony W. Grieshop  
DATE: 12/18/2020

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/17/20	MGS-4.3	1/18/13	TC-41.20	10/18/13	800 10/16/20	ASBESTOS
BP-3.2	1/18/19	MGS-5.2	7/15/16	TC-41.30	10/18/13	832 10/18/19	DEMOLITION
BP-4.1	7/19/13	MGS-5.3	7/15/16	TC-42.20	10/18/13	878 1/17/20	SURVEY REPORT
				TC-52.10	10/18/13	902 7/19/19	9/09/2019
DM-1.1	7/17/20	RM-4.2	4/17/20	TC-52.20	01/15/21	961 4/17/20	WATERWAY
DM-1.2	1/18/13			TC-61.30	1/17/19		PERMITS
DM-3.1	1/18/13	MT-96.11	4/17/20	TC-64.10	1/17/20		CONDITIONS
DM-4.2	7/20/12	MT-96.20	7/15/16	TC-65.10	1/17/14		4/18/2019
DM-4.3	1/15/16	MT-96.26	1/18/19	TC-65.11	7/21/17		NATIONWIDE PERMIT
DM-4.4	1/15/16	MT-97.10	4/19/19				3/21/2017
HW-2.1	7/20/18	MT-101.60	1/17/20				ASBESTOS SPECTRA ENERGY
		MT-101.70	1/17/20				TRANSMISSION
MGS-1.1	1/19/18	MT-101.75	1/17/20				GUIDELINES
MGS-2.1	1/19/18	MT-101.90	7/17/20				10/03/2019
MGS-4.2	7/19/13	MT-105.10	1/17/20				

**SPECIAL PROVISIONS**  
ASBESTOS SURVEY REPORT  
12/30/2020

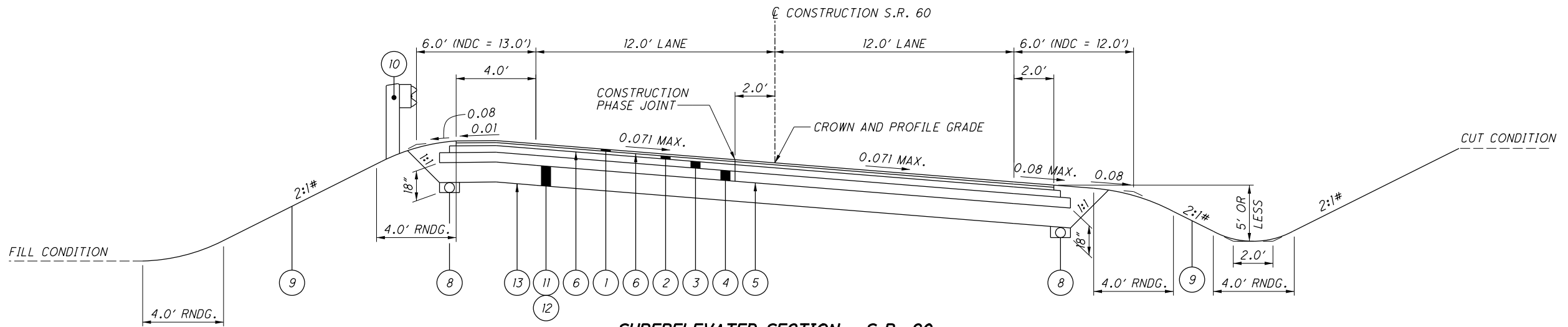
APPROVED: Jason Z. Jager  
DATE: 12/22/2020  
DISTRICT DEPUTY DIRECTOR

APPROVED: Julie Harutyan  
DATE: 2/19/2021  
DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E170 (058)  
PID NO. 101004  
CONSTRUCTION PROJECT NO.  
RAILROAD INVOLVEMENT NONE  
MUS-60-0.00  
1/459

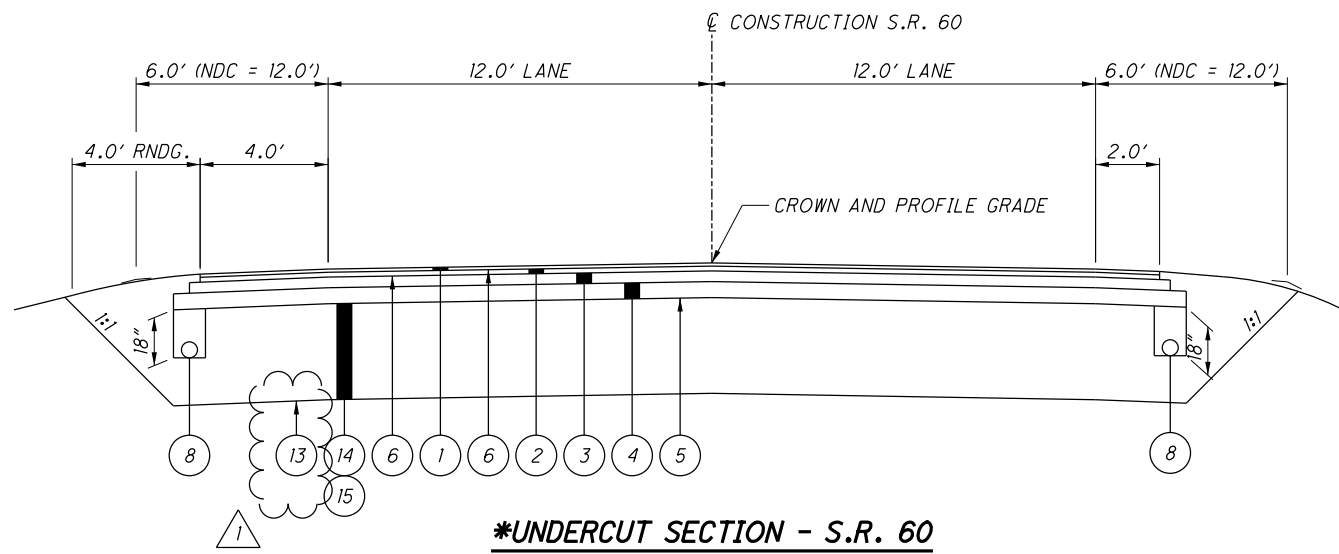
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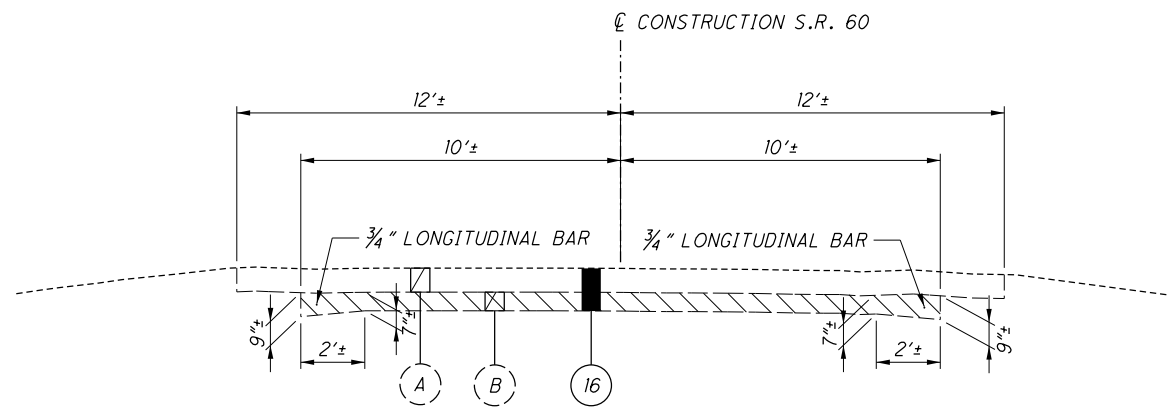
**SUPERELEVATED SECTION - S.R. 60**

SECTION APPLIES:  
 STA. 172+36.98 TO STA. 179+10.32 = 673.34 FT  
 STA. 191+04.18 TO STA. 199+46.42 = 842.24 FT  
 STA. 205+18.91 TO STA. 210+48.67 = 529.76 FT  
 STA. 229+22.43 TO STA. 236+92.01 = 769.58 FT  
 STA. 269+85.38 TO STA. 277+80.87 = 795.49 FT  
 \*STA. 295+04.35 TO STA. 299+67.18 = 462.83 FT  
 STA. 312+20.42 TO STA. 320+95.34 = 874.92 FT  
 \*STA. 336+05.14 TO STA. 345+49.52 = 944.38 FT  
 STA. 345+74.30 TO STA. 357+13.70 = 1139.40 FT  
 STA. 358+78.34 TO STA. 364+78.83 = 600.49 FT  
 STA. 368+42.87 TO STA. 373+28.65 = 485.78 FT  
 STA. 387+45.50 TO STA. 392+93.88 = 548.38 FT  
 \*STA. 393+35.06 TO STA. 404+97.20 = 1162.14 FT  
 STA. 407+10.45 TO STA. 416+76.45 = 966.00 FT  
 TOTAL = 10,794.73 FT



**\*UNDERCUT SECTION - S.R. 60**

SECTION APPLIES:  
 STA. 295+66.50 TO STA. 299.67.00  
 STA. 339+66.50 TO STA. 343+66.00  
 STA. 397+04.50 TO STA. 401+20.50  
 STA. 420+35.50 TO STA. 424+35.50



**EXISTING SECTION - S.R. 60**

SECTION APPLIES:  
 STA. 3+25.00 TO STA. 171+28.19 = 16803.19 FT  
 STA. 172+36.98 TO STA. 404+97.20 = 23260.22 FT  
 STA. 407+10.45 TO STA. 427+15.00 = 2004.55 FT  
 TOTAL = 42,067.96 FT

- NOTES**
- SEE SHEET 5 FOR LEGEND
  - SEE PLAN AND PROFILE SHEETS FOR PAVEMENT WIDTH TAPERS
- # OR AS SHOWN ON CROSS SECTIONS
- \* SEE UNDERCUT SECTION, THIS SHEET, FOR ADDITIONAL INFORMATION. USE 3 FT. UNDERCUT IN LIEU OF 1 FT. UNDERCUT.

REVISIONS	NUMBER	DATE	DESCRIPTION
1	1	03/25/21	ADDED ITEM

TYPICAL SECTIONS

MUS-60-0.00

**DRAINAGE DISCHARGE CONTINUANCE**

FURNISH A DRAINAGE DISCHARGE CONTINUANCE FOR ANY DRAINAGE DISCHARGE DISTURBED BY THE WORK AND NOT SHOWN IN THE PLANS. THE LOCATION, TYPE (CONDUIT OR SWALE), SIZE AND GRADE OF THE DRAINAGE DISCHARGE CONTINUANCE WILL BE AGREED TO BY THE ENGINEER

FURNISH AN INSPECTION WELL AT THE RIGHT OF WAY LINE IN ACCORDANCE WITH SCD DM-3.1 FOR EACH DRAINAGE DISCHARGE THAT OUTLETS THROUGH A CURB OPENING, OR INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST IS INCLUDED IN ITEM 611, INSPECTION WELL.

FURNISH A WELL GRADED TRANSITION BETWEEN THE DITCH AND THE SWALE WHEN OUTLETTING A SWALE TO A DITCH. THE COST FOR THE GRADED TRANSITION IS INCLUDED IN ITEM 203, EMBANKMENT AS PER PLAN.

FURNISH AN EROSION CONTROL PAD AS SHOWN IN SCD DM-1.1 WHEN OUTLETTING A CONDUIT TO A DITCH. THE COST FOR THE EROSION CONTROL PAD IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE \_ FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED HOLE OR A CURB SECTION WITH A HOLE WHEN OUTLETTING A CONDUIT THROUGH A CURB OPENING. THE COST OF DRILLING, OR FURNISHING THE CURB SECTION WITH HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE \_ FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED CORE HOLE WHEN OUTLETTING INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST OF THE DRILLED CORE HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE \_ FOR DRAINAGE DISCHARGE CONTINUANCE.

**DOCUMENTATION**

THE CONTRACTOR SHALL FURNISH WRITTEN DOCUMENTATION TO THE ENGINEER AND TO THE DISTRICT R/W PERMIT OFFICE. THE DOCUMENTATION INCLUDES THE CONSTRUCTION PROJECT NUMBER, PID, COUNTY, ROUTE, SECTION, LATITUDE AND LONGITUDE OF THE DRAINAGE DISCHARGE AT THE R/W, THE NAME OF PROPERTY OWNER WITH ADDRESS, THE DATE THE DRAINAGE DISCHARGE WAS LOCATED, THE DATE THE DRAINAGE DISCHARGE CONTINUANCE WAS FURNISHED, A DETAILED DESCRIPTION OF THE WORK AND PICTURES OF THE DRAINAGE DISCHARGE CONTINUANCE (IN PDF OR JPEG FORMAT). THE DOCUMENTATION IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE \_ FOR DRAINAGE DISCHARGE CONTINUANCE OR ITEM 203, EMBANKMENT, AS PER PLAN.

DRAINAGE DISCHARGE CONTINUANCE REMOVAL THE ENGINEER MAY REQUIRE THE NEWLY INSTALLED DRAINAGE DISCHARGE CONTINUANCE TO BE REMOVED.

REMOVE THE NEWLY INSTALLED CONDUIT AND ANY EXISTING CONDUIT TO THE RIGHT OF WAY LINE. FOR CONDUIT THAT OUTLETS THROUGH THE CURB RESTORE THE CURB BY FILLING THE HOLE WITH CLASS QC 1 CONCRETE OR REPLACE THE CURB SECTION. FOR CONDUIT THAT OUTLETS TO A STORM SEWER OR DRAINAGE STRUCTURE LEAVE 6 INCHES PROTRUDING OUTSIDE OF THE CONDUIT. PLUG THE PROTRUDING CONDUIT WITH EITHER A MANUFACTURED CAP OR CLASS QC 1 CONCRETE. FOR CONDUIT THAT OUTLETS TO THE DITCH REMOVE THE EROSION CONTROL PAD. RESTORE ALL AREAS AS REQUIRED. PLUG THE EXISTING CONDUIT REGARDLESS OF SIZE AT THE RIGHT OF WAY LINE WITH CLASS QC 1 CONCRETE AND RESTORE ALL AREAS AS REQUIRED. ALL COSTS ARE INCLUDED IN ITEM 202, REMOVAL MISC. CONDUIT.

DAM THE SWALE THAT OUTLETS TO THE DITCH AT THE R/W AS DIRECTED BY THE ENGINEER. ALL COSTS ARE INCLUDED IN ITEM 203, EMBANKMENT, AS PER PLAN.

REMOVE THE INSPECTION WELL AND RESTORE ALL AREAS AS REQUIRED. THE COST IS INCLUDED IN ITEM 202, REMOVAL MISC. INSPECTION WELL.

CONDUIT MATERIAL TYPES  
THE FOLLOWING CONDUIT MATERIAL TYPES MAY BE USED:  
707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, AND 707.52 SDR35.

PAY ITEMS  
EACH OF THE PAY ITEMS LISTED BELOW FOR CONDUIT MISCELLANEOUS TYPES B, C, E AND F FOR DRAINAGE DISCHARGE CONTINUANCE INCLUDE CONDUIT SIZES 2 INCH TO 10 INCH. THERE IS NO COST DIFFERENTIATION FOR SIZE IN THESE PAY ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN MAKING THE ABOVE DRAINAGE DISCHARGE CONTINUANCE:

ITEM 611, INSPECTION WELL	1 EACH
ITEM 611, CONDUIT, MISC.: TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE	50 FT
ITEM 611, CONDUIT, MISC.: TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE	50 FT
ITEM 611, CONDUIT, MISC.: TYPE E FOR DRAINAGE DISCHARGE CONTINUANCE	50 FT
ITEM 611, CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE	50 FT
ITEM 202, REMOVAL MISC.: CONDUIT	50 FT
ITEM 202, REMOVAL MISC.: INSPECTION WELL	1 EACH
ITEM 203, EMBANKMENT, AS PER PLAN	100 CY

**PRIVATE MISCELLANEOUS REMOVALS**

ITEMS LISTED BELOW ARE PRIVATELY OWNED AND SHOULD BE REMOVED, RELOCATED PRIOR TO CONSTRUCTION BY THE OWNER. ITEMS, EXCEPT VEHICLES, THAT ARE PRESENT AT THE START OF CONSTRUCTION SHALL BECOME PROPERTY OF THE CONTRACTOR AND BE REMOVED AND DISPOSED OF OFF SITE. THE CONTRACTOR SHALL WORK WITH THE MUSKINGUM COUNTY SHERIFF'S OFFICE TO REMOVE ANY VEHICLES THAT ARE PRESENT AT THE START OF CONSTRUCTION. ITEMS NOT PRESENT AT THE START OF CONSTRUCTION SHALL BE NON-PERFORMED.

PAYMENT WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY FOR COMPLETE REMOVAL AND DISPOSAL OF ITEM.

THE FOLLOWING ITEMS HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

STA. 3+40 TO STA. 3+50 LT.	ITEM 202, REMOVAL MISC.: LANDSCAPING TIMBERS 4 EACH
STA. 3+40 TO 3+90 LT.	ITEM 202, REMOVAL MISC.: PRIVATE FENCE 50 FT
STA. 3+58 TO 3+80 LT.	ITEM 202, REMOVAL MISC.: TRAILER 1 EACH
STA. 4+42 TO STA. 4+55 LT.	ITEM 202, REMOVAL MISC.: VEHICLE 1 EACH
STA. 4+62 TO STA. 4+70 LT.	ITEM 202, REMOVAL MISC.: TRAILER 1 EACH
STA. 4+75 TO STA. 5+40 LT.	ITEM 202, REMOVAL MISC.: LANDSCAPING TIMBERS 8 EACH

**PRIVATE MISCELLANEOUS REMOVALS (CONT.)**

STA. 4+75 TO STA. 5+40 LT.  
ITEM 202, REMOVAL MISC.: PRIVATE FENCE 65 FT

STA. 4+83 TO STA. 4+95 LT.  
ITEM 202, REMOVAL MISC.: CAMPER 1 EACH

STA. 6+58 TO 6+69 LT.  
ITEM 202, REMOVAL MISC.: TRAILER 1 EACH

STA. 6+80 TO STA. 6+90 LT.  
ITEM 202, REMOVAL MISC.: TRAILER 1 EACH

STA. 8+86 TO STA. 9+00 LT.  
ITEM 202, REMOVAL MISC.: TRAILER 1 EACH

STA. 9+10 TO STA. 9+32 LT.  
ITEM 202, REMOVAL MISC.: TRAILER 1 EACH

STA. 9+58 TO STA. 9+75 LT.  
ITEM 202, REMOVAL MISC.: BOAT 1 EACH

STA. 9+58 TO STA. 9+75 LT.  
ITEM 202, REMOVAL MISC.: VEHICLE 1 EACH

STA. 16+70 LT.  
ITEM 202, REMOVAL MISC.: PRIVATE SIGN 1 EACH

STA. 17+38 LT.  
ITEM 202, REMOVAL MISC.: TREE 1 EACH

STA. 30+10 LT.  
ITEM 202, REMOVAL MISC.: SATELLITE DISH 1 EACH

STA. 31+60 TO STA. 31+85 RT.  
ITEM 202, REMOVAL MISC.: LANDSCAPING TIMBERS 10 EACH

STA. 31+85 LT.  
ITEM 202, REMOVAL MISC.: PRIVATE SIGN 1 EACH

STA. 33+15 TO STA. 33+38 LT.  
ITEM 202, REMOVAL MISC.: TRAILER 1 EACH

STA. 37+22 RT.  
ITEM 202, REMOVAL MISC.: ROCK 1 EACH

STA. 38+35 LT.  
ITEM 202, REMOVAL MISC.: ROCK 9 EACH

STA. 40+29 TO STA. 40+46 RT.  
ITEM 202, REMOVAL MISC.: LANDSCAPED AREA 1 EACH

STA. 44+32 LT.  
ITEM 202, REMOVAL MISC.: PRIVATE SIGN 1 EACH

STA. 44+42 TO STA. 44+59 LT.  
ITEM 202, REMOVAL MISC.: BUSH 5 EACH

STA. 52+93 TO STA. 53+00 RT.  
ITEM 202, REMOVAL MISC.: PRIVATE FENCE 10 FT

STA. 53+26 TO STA. 53+37 RT.  
ITEM 202, REMOVAL MISC.: PRIVATE FENCE 11 FT

STA. 53+45 LT.  
ITEM 202, REMOVAL MISC.: PRIVATE FENCE POST 2 EACH

STA. 55+58 TO STA. 55+78 LT.  
ITEM 202, REMOVAL MISC.: PRIVATE FENCE 20 FT

STA. 60+27 TO STA. 60+30 LT.  
ITEM 202, REMOVAL MISC.: WOODEN STAIRCASE 1 EACH

**PRIVATE MISCELLANEOUS REMOVALS (CONT.)**

STA. 60+16 LT.  
ITEM 202, REMOVAL MISC.: BUSH 1 EACH

STA. 124+98 TO STA. 126+82 LT.  
ITEM 202, REMOVAL MISC.: PRIVATE FENCE 185 FT

STA. 130+80 TO STA. 132+10 RT.  
ITEM 202, REMOVAL MISC.: CINDER BLOCK 7 EACH

STA. 133+40 TO STA. 133+50 RT.  
ITEM 202, REMOVAL MISC.: DECK 1 EACH

STA. 133+90 TO STA. 134+10 RT.  
ITEM 202, REMOVAL MISC.: CAR PORT 1 EACH

STA. 143+38 RT.  
ITEM 202, REMOVAL MISC.: PRIVATE SIGN 1 EACH

STA. 147+50 RT.  
ITEM 202, REMOVAL MISC.: PRIVATE SIGN 1 EACH

STA. 149+85 RT.  
ITEM 202, REMOVAL MISC.: PRIVATE SIGN 1 EACH

STA. 175+12 LT.  
ITEM 202, REMOVAL MISC.: PRIVATE SIGN 1 EACH

STA. 178+01 LT.  
ITEM 202, REMOVAL MISC.: ROCK 1 EACH

STA. 178+47 LT.  
ITEM 202, REMOVAL MISC.: ROCK 1 EACH

STA. 183+71 LT.  
ITEM 202, REMOVAL MISC.: PRIVATE SIGN 1 EACH

STA. 184+29 LT.  
ITEM 202, REMOVAL MISC.: WATER HAND PUMP 1 EACH

STA. 184+58 TO STA. 185+01 LT.  
ITEM 202, REMOVAL MISC.: PRIVATE FENCE 40 FT

STA. 228+94 TO STA. 229+35 LT.  
ITEM 202, REMOVAL MISC.: CINDER BLOCK 6 EACH

STA. 267+40 RT.  
ITEM 202, REMOVAL MISC.: ROCK 1 EACH

STA. 267+58 RT.  
ITEM 202, REMOVAL MISC.: ROCK 1 EACH

STA. 335+91 RT.  
ITEM 202, REMOVAL MISC.: PRIVATE LIGHT POLE 1 EACH

STA. 335+91 RT.  
ITEM 202, REMOVAL MISC.: STATUE 1 EACH

STA. 358+20 RT.  
ITEM 202, REMOVAL MISC.: PRIVATE SIGN 1 EACH

CALCULATED  
T.W.G.  
CHECKED  
M.D.W.

**GENERAL NOTES**

**MUS-60-0.00**

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**ESTIMATED QUANTITIES**

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 253, PAVEMENT REPAIR	100 SQ. YD.
ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE A OR B	1,000 CU. YD.
ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE C	200 CU. YD.
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	200 CU. YD.
ITEM 616, WATER	50 MGAL.

**MAINTENANCE OF TRAFFIC QUANTITIES**

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN ESTIMATED BASED ON A TYPICAL ONE-LANE, TWO-WAY OPERATION AS SHOWN ON SHEETS 14-15. THE ESTIMATION ASSUMES A MAXIMUM WORK AREA LENGTH OF 1200 FEET AND ASSUMES 72 SET UPS WILL BE REQUIRED. THESE QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

- ITEM 614 - WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL) - 286 EACH 
- ITEM 614 - WORK ZONE EDGE LINE, CLASS 1, 6", 642 PAINT - 19.14 MILE
- ITEM 614 - WORK ZONE CENTER LINE, CLASS 1, 642 PAINT - 8.51 MILE
- ITEM 614 - WORK ZONE STOP LINE, CLASS 1, 642 PAINT - 1,728 FT
- ITEM 622 - PORTABLE BARRIER, UNANCHORED - 102,240 FT

**MAINTAINING DRIVES IN THE WORK ZONE**

FOR THE DRIVEWAYS THAT ARE LOCATED WITHIN A WORK ZONE, THE CONTRACTOR SHALL USE THE PROPOSED QUANTITIES OF ITEM 304 TO MAINTAIN ACCESS FOR THE DRIVEWAY UNTIL THE PROPOSED ASPHALT BASE AND ASPHALT CONCRETE INTERMEDIATE COURSE ARE PLACED. THE EXCESS ITEM 304 USED FOR MAINTAINING THE DRIVEWAY SHALL BE REMOVED PRIOR TO THE PAVING OPERATION AND STORED FOR REUSE.

**INTERIM COMPLETION DATE**

OCTOBER 31, 2021 AND OCTOBER 31, 2022 WILL CONSTITUTE INTERIM COMPLETION DATES FOR THIS PROJECT. S.R. 60 MUST BE OPEN TO UNRESTRICTED AND UNSHIFTED TRAFFIC IN BOTH DIRECTIONS FROM OCTOBER 31 THROUGH MARCH 31. IN ADDITION TO HAVING UNRESTRICTED TRAFFIC, THE SURFACE BETWEEN ADJACENT LANES MUST MATCH DURING THE WINTER MONTHS DUE TO SNOW & ICE REMOVAL EFFORTS (I.E. NO UNEVEN LANES).

IF THE CONTRACTOR FAILS TO HAVE S.R. 60 OPEN TO TRAFFIC AS DESCRIBED ABOVE AND/OR THERE ARE SECTIONS OF UNEVEN PAVEMENT BETWEEN LANES, LIQUIDATED DAMAGES AS PER 108.07 WILL BE ASSESSED TO THE CONTRACTOR UNTIL THESE ITEMS ARE CORRECTED.

**DELINEATION OF PORTABLE AND PERMANENT BARRIER**

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND PERMANENT CONCRETE BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE "CRIMPED." PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

- ITEM 614, BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL) 2160 EACH
- ITEM 614, OBJECT MARKER, TWO WAY 2160 EACH
- ITEM 614, INCREASED BARRIER DELINEATION 9240 FEET

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

**PORTABLE FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL**

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN ON SHEETS 15-16 AND TRAFFIC SCDS MT-96.11, 96.20 AND 96.26 SHALL BE FULLY TRAFFIC-ACTUATED, PORTABLE AND OPERATE IN A MANNER SIMILAR TO THAT DESCRIBED IN SECTION 733.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE INITIAL CONTROLLER TIMING SHALL BE AS FOLLOWS:

	1 (ALL RED) DUMMY PHASE	2 MAINLINE (NORTHBOUND)	3 (ALL RED) DUMMY PHASE	4 MAINLINE (SOUTHBOUND)	5 (ALL RED) DUMMY PHASE	6 SIDE STREET/SIDE ROAD PRIVATE/COMMERCIAL DRIVES
MIN.GREEN		10		10		7
EXTENSION		3		3		3
MAX.GREEN		*		*		*
YELLOW		6		6		4
ALL RED	*		*		*	
RECALL	ON	OFF	ON	OFF	ON	OFF

\*THE CONTRACTOR SHALL SUBMIT SIGNAL TIMINGS BASED ON THE LENGTH OF EACH ONE-LANE, TWO-WAY CONFIGURATION SETUP TO THE ENGINEER FOR APPROVAL.

PROVIDE TIMING APPROPRIATE FOR THE SIGNAL LOCATION UNDER CONSIDERATION. TYPICAL FLOW RATES ARE DISPLAYED IN TABLE 697-2 IN THE ODOT TRAFFIC ENGINEERING MANUAL (TEM).

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL AND MAINTAIN A TRAFFIC DETECTOR ON EACH TRAFFIC APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR. THE CONTRACTOR SHALL HAVE ONE EXTRA PORTABLE TRAFFIC SIGNAL ON SITE FOR EMERGENCY USE.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE MAINLINE AND SIDE ROAD PORTABLE TRAFFIC SIGNALS AND SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC. PORTABLE SIGNALS FOR DRIVEWAYS SHALL BE INCLUDED UNDER ITEM 614, MAINTAINING TRAFFIC, MISC.: PORTABLE SIGNAL FOR DRIVEWAYS.

**ITEM 614, MAINTAINING TRAFFIC, MISC.: PORTABLE SIGNAL FOR DRIVEWAYS**

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL AND MAINTAIN A PORTABLE SIGNAL AND TRAFFIC DETECTOR ON EACH DRIVEWAY APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE RESIDENTIAL/COMMERCIAL DRIVE PORTABLE TRAFFIC SIGNALS AND SHALL BE INCLUDED IN THE CONTRACT PRICE PER MONTH FOR ITEM 614, MAINTAINING TRAFFIC, MISC.: PORTABLE SIGNAL FOR DRIVEWAYS.

ITEM 614, MAINTAINING TRAFFIC, MISC.: PORTABLE SIGNAL FOR DRIVEWAYS 320 MONTHS ASSUMING 20 PORTABLE SIGNALS FOR 16 MONTH(S)

**DUST CONTROL**

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

- ITEM 616, WATER 210 MGAL.

**DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL**

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL; AND, ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.


OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET WITH A 25 FOOT OFFSET FROM THE BARRIER REFLECTORS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

- ITEM 614, BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL) 150 EACH
- ITEM 614, OBJECT MARKER, TWO WAY 150 EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE ABOVE ITEM(S).

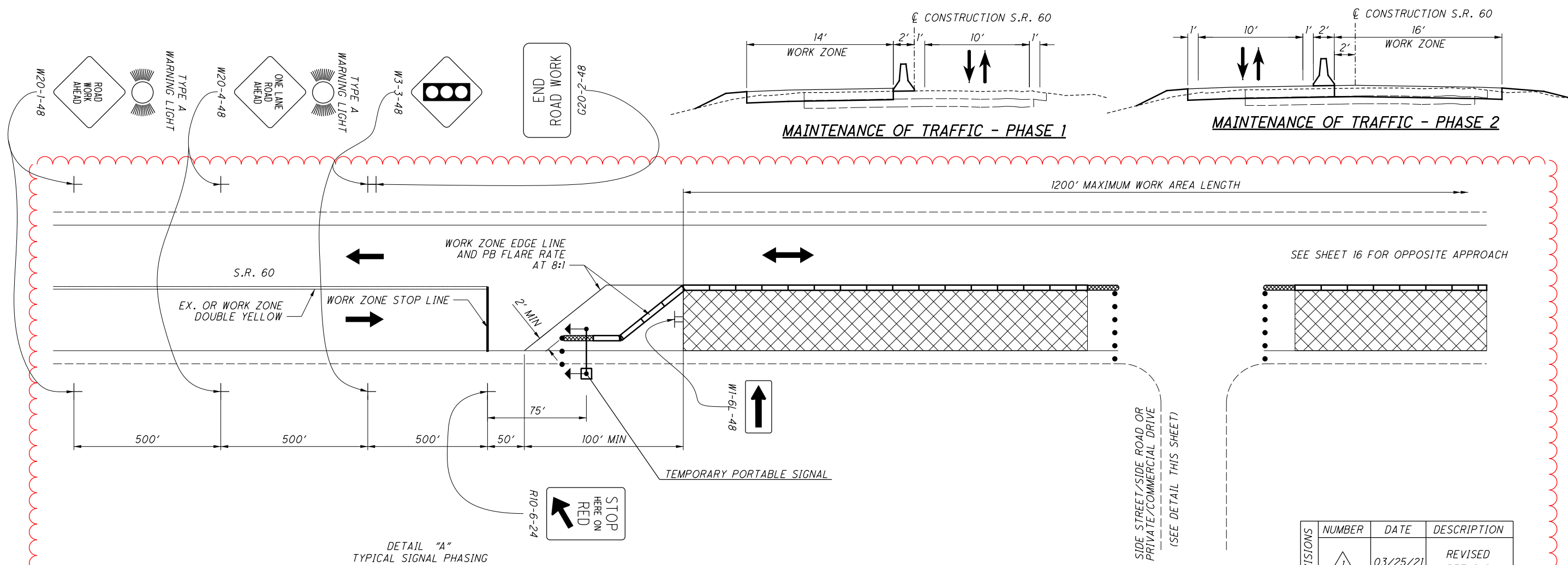


REVISIONS	NUMBER	DATE	DESCRIPTION
		03/25/21	REVISED NOTES & QUANTITY

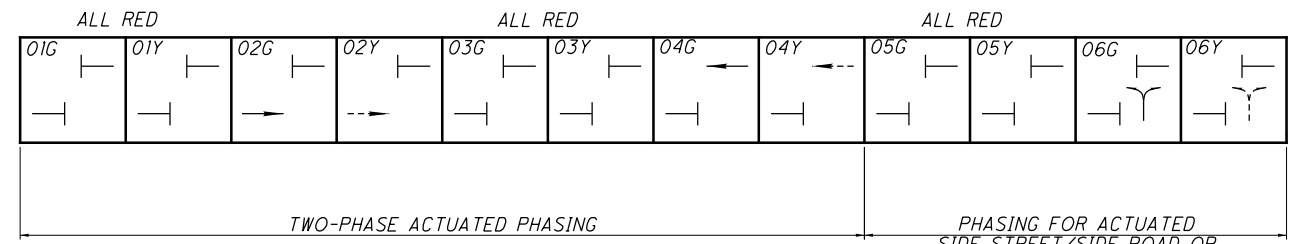
CALCULATED  
GRS  
CHECKED  
NAU

MAINTENANCE OF TRAFFIC GENERAL NOTES

MUS-60-0.00

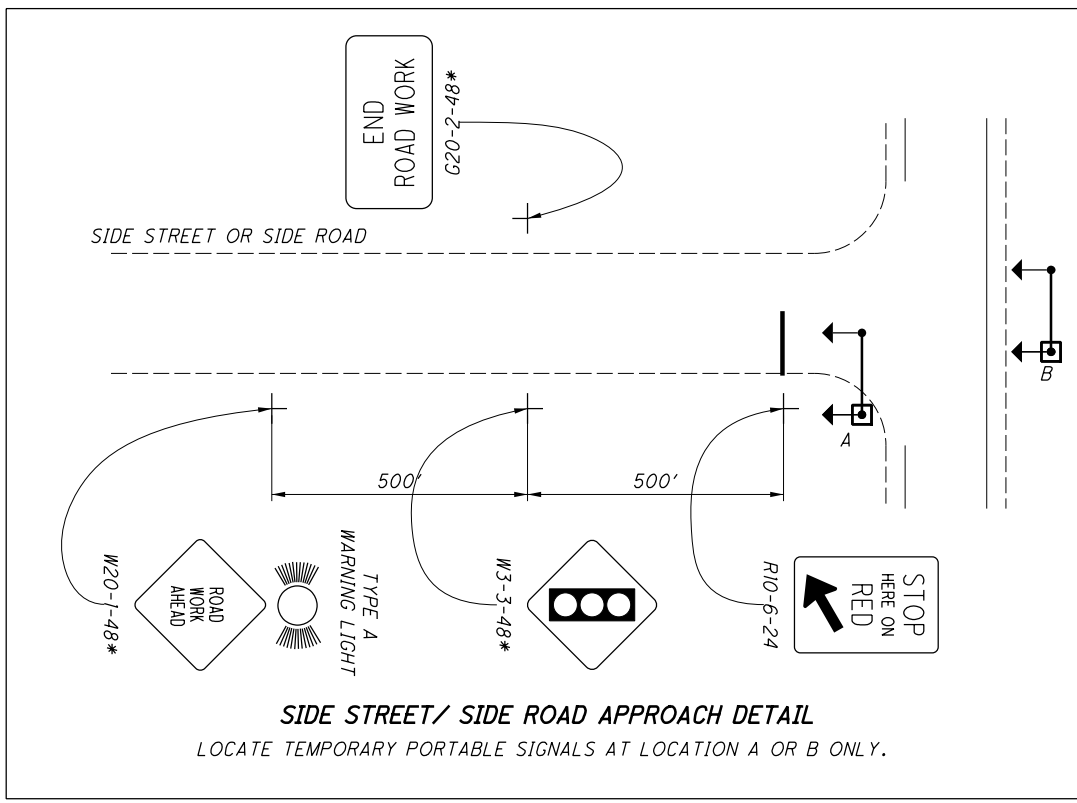
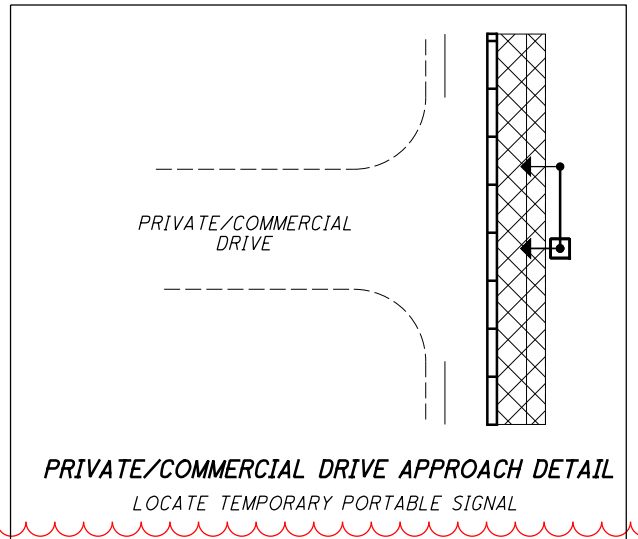
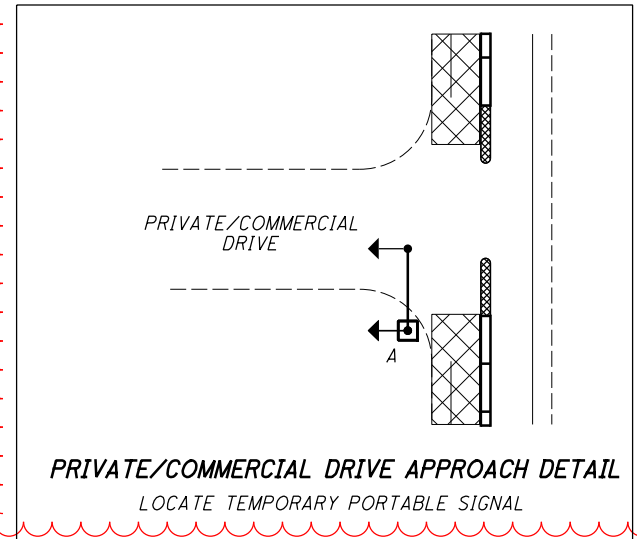


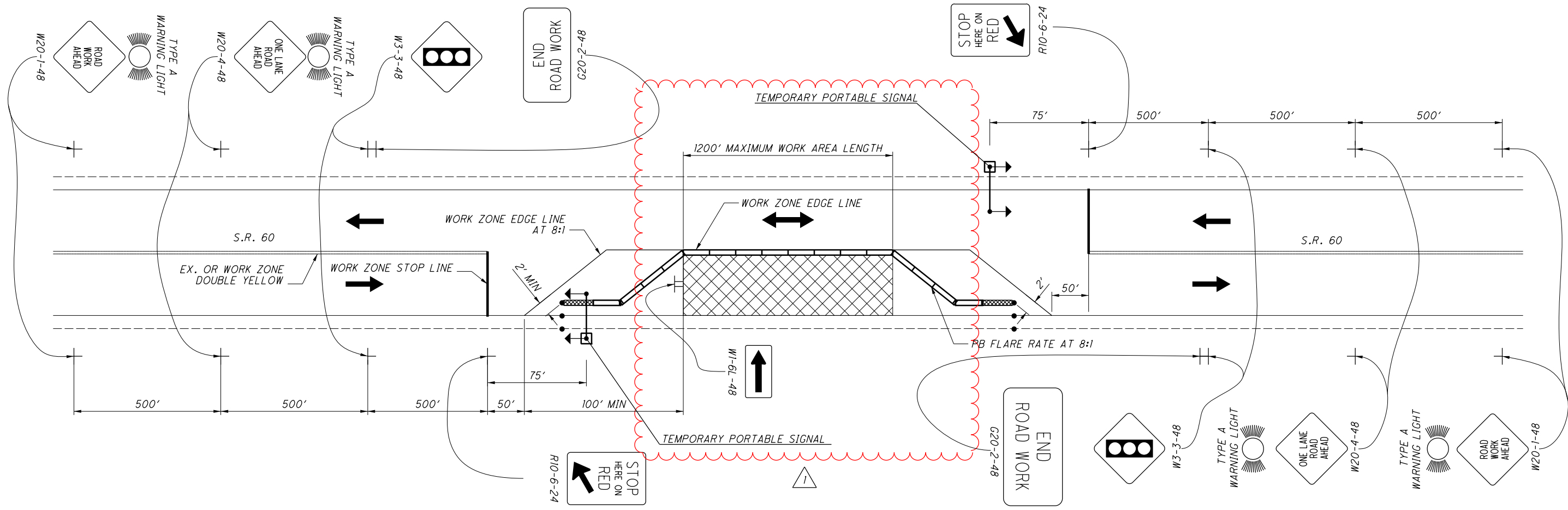
DETAIL "A"  
TYPICAL SIGNAL PHASING



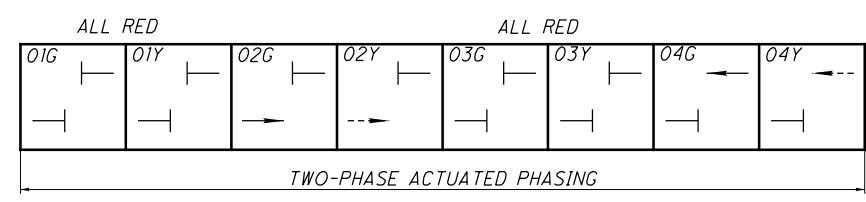
**NOTE:**  
ADDITIONAL ALL RED AND SIDE STREET APPROACH PHASING SHALL BE ADDED AS REQUIRED TO ACCOMMODATE THE NUMBER OF SIDE STREET APPROACHES FOR EACH ONE-LANE, TWO WAY SET UP.

REVISIONS	NUMBER	DATE	DESCRIPTION
1		03/25/21	REVISED DETAILS

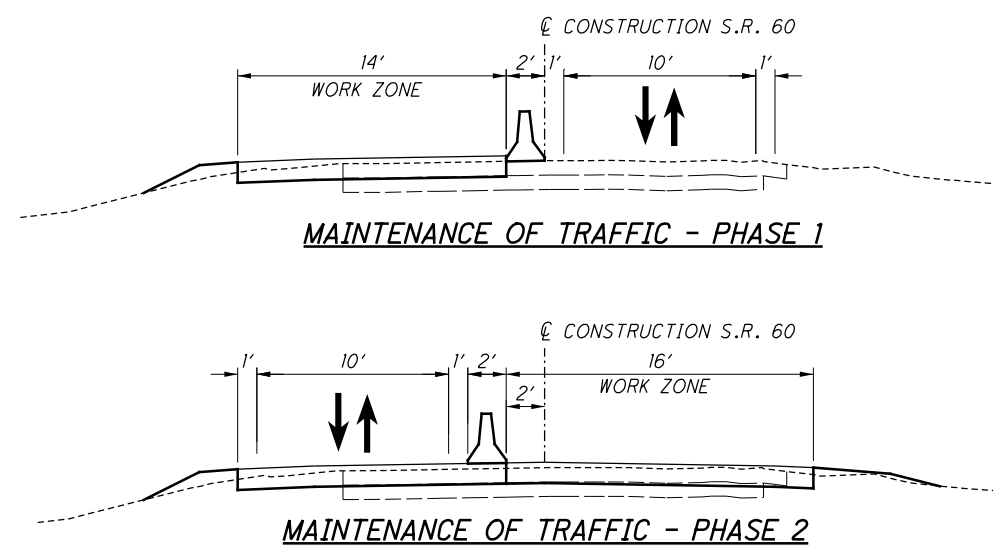




DETAIL "A"  
TYPICAL SIGNAL PHASING



REVISIONS	NUMBER	DATE	DESCRIPTION
1		03/25/21	REVISED DESCRIPTION



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SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
13	14	27	28	429	431	453	01/STR/PV	02/STR/BR										
<b>TRAFFIC CONTROL</b>																		
					531		531		621	00100	531	EACH	RPM					
					531		531		621	54000	531	EACH	RAISED PAVEMENT MARKER REMOVED					
		24	251						275	00110	275	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL					
					158				630	02100	158	FT	GROUND MOUNTED SUPPORT, NO. 2 POST					
					1,099				630	03100	1,099	FT	GROUND MOUNTED SUPPORT, NO. 3 POST					
					15				630	04100	15	FT	GROUND MOUNTED SUPPORT, NO. 4 POST					
					10				630	08600	10	EACH	SIGN POST REFLECTOR					
					1				630	79500	1	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED					
					570.5				630	80100	570.5	SF	SIGN, FLAT SHEET					
					129				630	84900	129	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL					
					99				630	86002	99	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL					
					1				630	87500	1	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL					
					16.06				644	00104	16.06	MILE	EDGE LINE, 6"					
					8.03				644	00300	8.03	MILE	CENTER LINE					
					104				644	00500	104	FT	STOP LINE					
<b>MAINTENANCE OF TRAFFIC</b>																		
					100				100	01000	100	SY	PAVEMENT REPAIR					
					1,000				410	12000	1,000	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B					
					200				410	13000	200	CY	TRAFFIC COMPACTED SURFACE, TYPE C					
			200						200	11110	200	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE					
					9,240				614	11630	9,240	FT	INCREASED BARRIER DELINEATION					
					286				614	12384	286	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)					
					200				614	13000	200	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC					
					2,160				614	13310	2,160	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL					
					150				614	13312	150	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL					
					2,310				614	13360	2,310	EACH	OBJECT MARKER, TWO WAY					
					320				614	18050	320	MNTH	MAINTAINING TRAFFIC, MISC.: PORTABLE SIGNAL FOR DRIVEWAYS				13	
					36				614	18601	36	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN				14	
					8.51	8.03			614	21100	16.54	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT					
						8.03			614	21550	8.03	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT					
					19.14	16.06			614	22110	35.2	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT					
					1,728				614	26200	1,728	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT					
					260				616	10000	260	MGAL	WATER					
					102,240				622	41100	102,240	FT	PORTABLE BARRIER, UNANCHORED					
<b>STRUCTURE REPAIR (MUS-60-0319)</b>																		
							284	284	202	23500	284	SY	WEARING COURSE REMOVED					
							27	27	512	33010	27	SY	TYPE 3 WATERPROOFING					
							22	22	512	74001	22	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN				452	
							160	160	516	31011	160	FT	2" DEEP JOINT SEALER, AS PER PLAN				452	
							157	157	SPECIAL	51911600	157	SF	PATCHING CONCRETE STRUCTURE: CLASS OC2 CONCRETE WITH ACCELERATING ADMIXTURE				452	
							2	2	621	54000	2	EACH	RAISED PAVEMENT MARKER REMOVED					

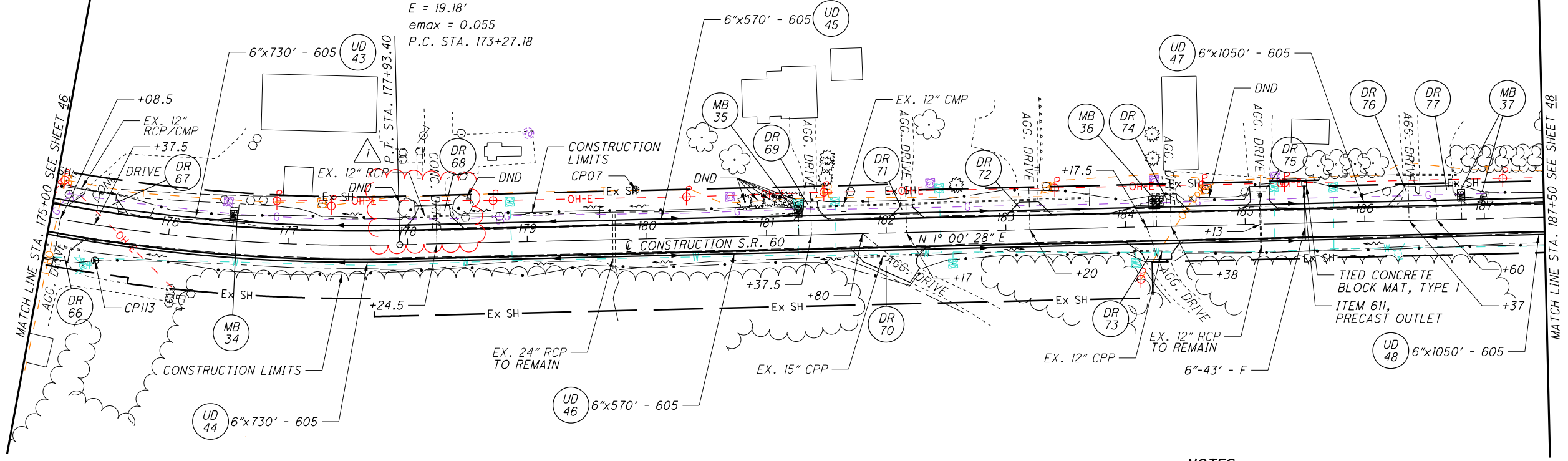
GENERAL SUMMARY

MUS-60-0.00

REVISIONS	NUMBER	DATE	DESCRIPTION
	1	03/25/21	REVISED QUANTITY ADDED ITEM

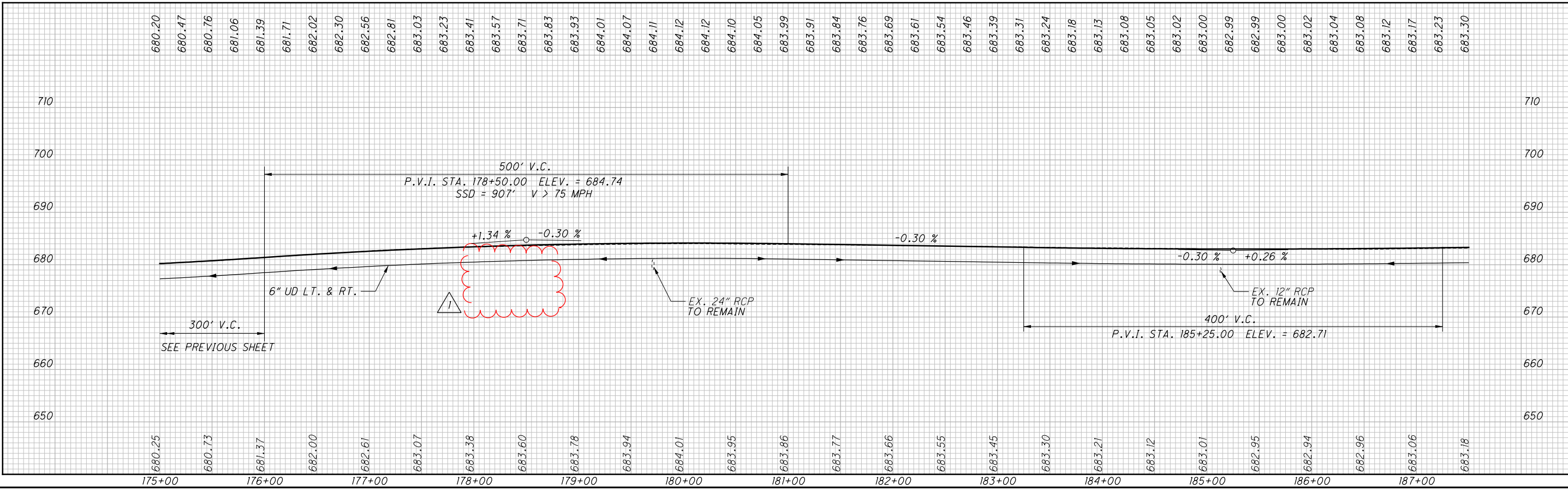


**CURVE DATA - S.R. 60**  
 P.I. STA. 175+62.37  
 $\Delta = 18^\circ 38' 57''$  (LT)  
 $D_c = 4^\circ 00' 00''$   
 $R = 1,432.39'$   
 $T = 235.19'$   
 $L = 466.23'$   
 $E = 19.18'$   
 $e_{max} = 0.055$   
 P.C. STA. 173+27.18



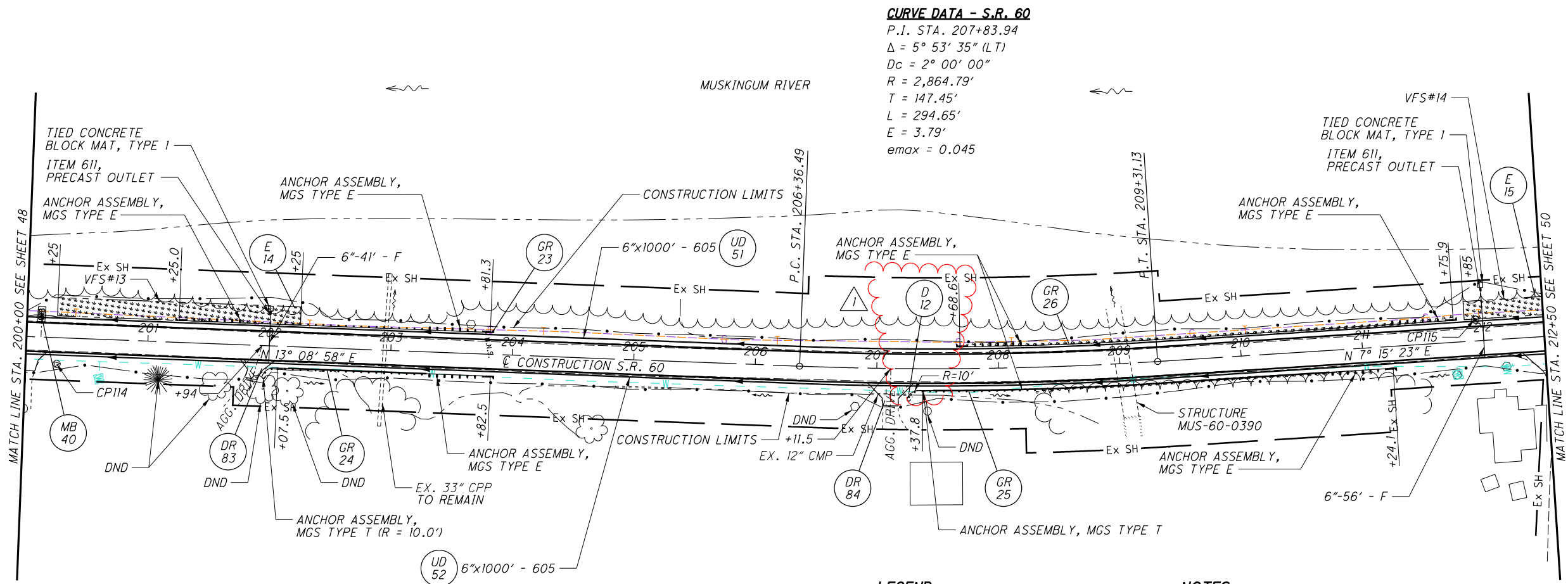
REVISIONS	NUMBER	DATE	DESCRIPTION
	1	03/25/21	REMOVED D-8 LABEL AND PIPE

- NOTES**
1. FOR ESTIMATED QUANTITIES, SEE SHEETS 27-32
  2. FOR SUPERELEVATION TABLES, SEE SHEET 383
  3. FOR DRIVEWAY DETAILS, SEE SHEET 396
  4. FOR DRIVEWAY PROFILES, SEE SHEETS 412-414



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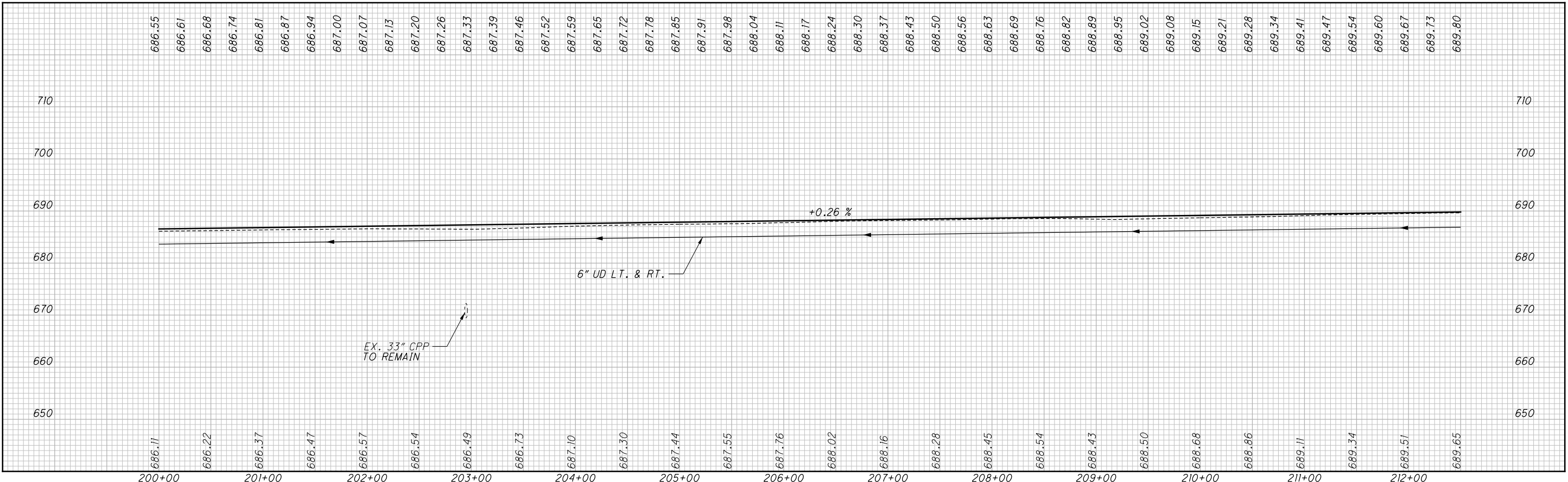


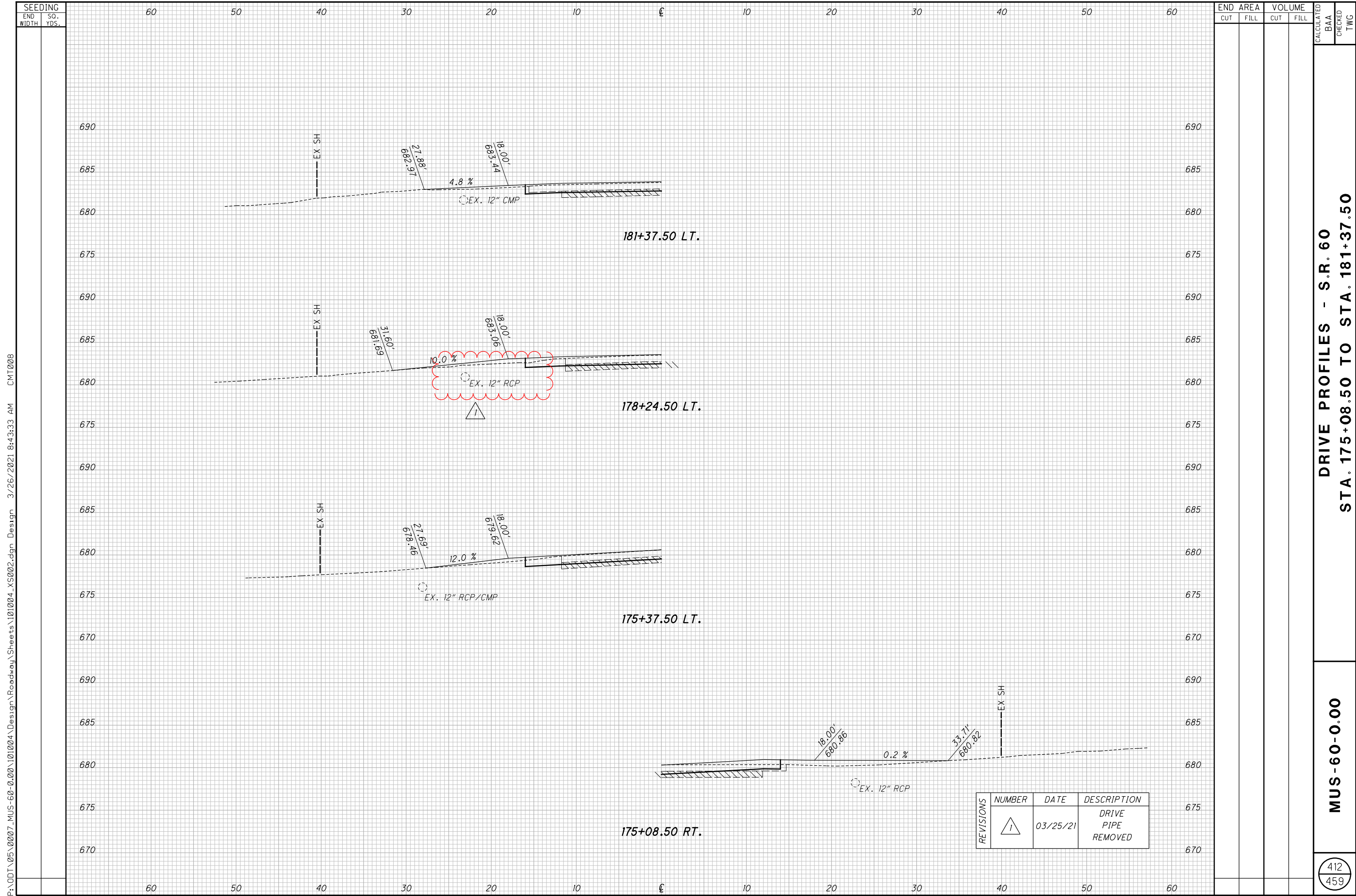


**LEGEND**  
 VEGETATED FILTER STRIP (15' WIDTH)

- NOTES**
1. FOR ESTIMATED QUANTITIES, SEE SHEETS 27-32
  2. FOR SUPERELEVATION TABLES, SEE SHEET 383
  3. FOR DRIVEWAY DETAILS, SEE SHEET 396
  4. FOR DRIVEWAY PROFILES, SEE SHEETS 415-416

REVISIONS	NUMBER	DATE	DESCRIPTION
	1	03/25/21	REMOVED D-12 LABEL





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SEEDING		END AREA		VOLUME		CALCULATED	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL	BAA	TWG

**DRIVE PROFILES - S.R. 60**  
**STA. 175+08.50 TO STA. 181+37.50**

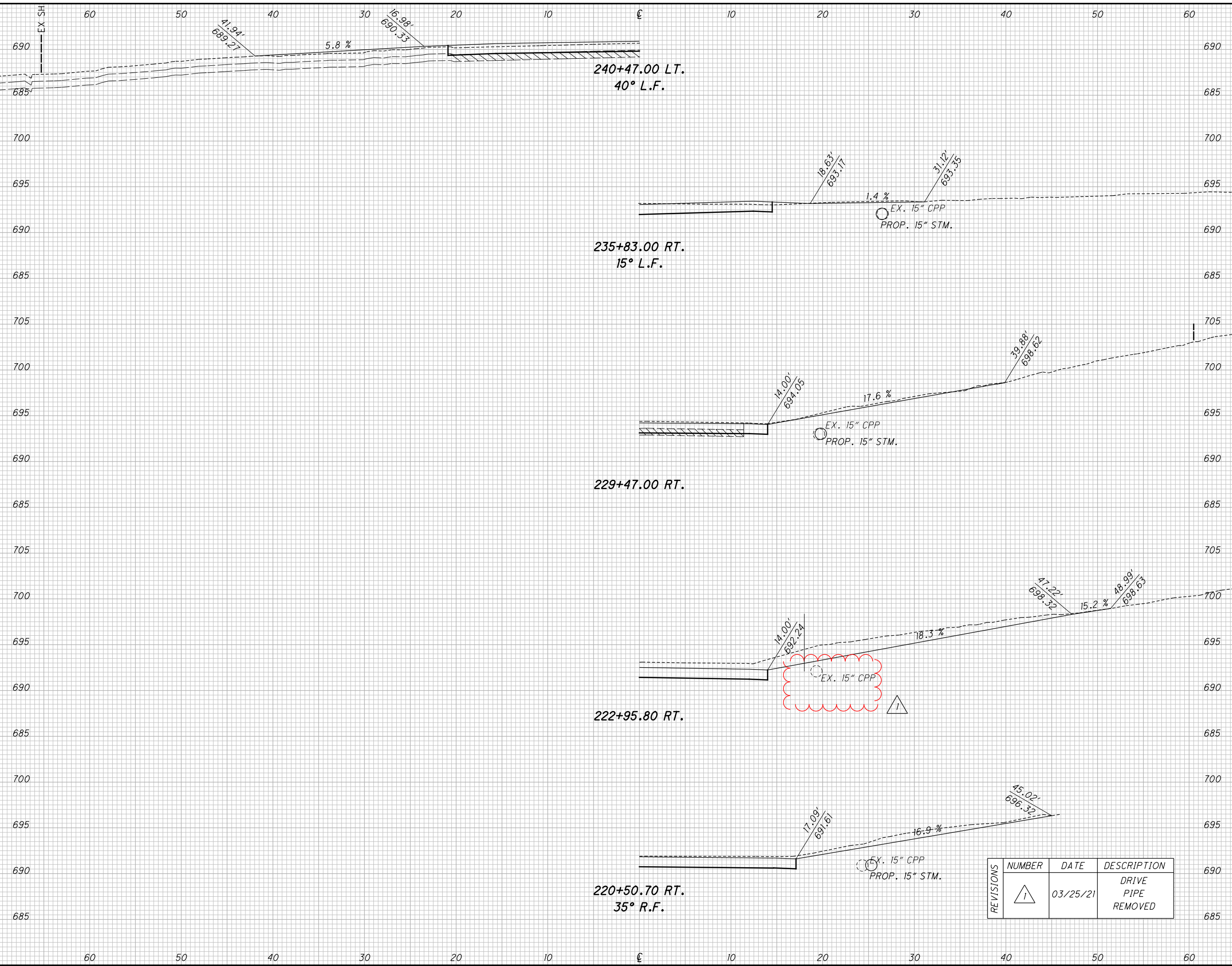
**MUS-60-0.00**

412  
459

REVISIONS	NUMBER	DATE	DESCRIPTION
△	1	03/25/21	DRIVE PIPE REMOVED

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SEEDING	
END WIDTH	SO. YDS.
60	690
50	685
40	700
30	695
20	690
10	685
€	690
10	695
20	700
30	695
40	690
50	685
60	690



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED	CHECKED
BAA	TWG

DRIVE PROFILES - S.R. 60  
STA. 220+50.73 TO STA. 240+47.00

MUS-60-0.00

417  
459

REVISIONS	NUMBER	DATE	DESCRIPTION
1	1	03/25/21	DRIVE PIPE REMOVED

**ITEM 614 MAINTAINING TRAFFIC**

A MINIMUM OF ONE LANE OF TRAFFIC ON S.R. 60 SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 8. TRAFFIC MAY ONLY BE DETOURED DURING THE SUMMER WHEN SCHOOLS ARE NOT IN SESSION FROM JUNE 1ST TO AUGUST 15TH OR AS DIRECTED BY THE ENGINEER. INCENTIVE/DISINCENTIVE SHALL BE AS PER PROPOSAL NOTE 125 AND THE ADDITIONAL NOTE LABELED "A+B BIDDING".

BOTH LANES OF TRAFFIC ON S.R. 60 SHALL BE OPEN TO TRAFFIC DURING THE DESIGNATED "4TH OF JULY" WEEKEND, STARTING ON FRIDAY AT 12:00 PM AND ENDING ON TUESDAY MORNING AT 6:00 AM OR AS DIRECTED BY THE ENGINEER. SHOULD THE CONTRACTOR FAIL TO MEET THESE REQUIREMENTS, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PNI27).

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48x30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES, GATES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

S.R. 60: NORTH AND SOUTH OF THE STRUCTURE NO. MUS-60-0.29  
S.R. 60: NORTH AND SOUTH OF THE STRUCTURE NO. MUS-60-0.89

THE TWO STRUCTURE REPLACEMENTS INCLUDED IN THIS PART OF THE PROJECT SHALL NOT BE CONSTRUCTED SIMULTANEOUSLY. THE WORK NECESSARY TO REPLACE ONE STRUCTURE MUST BE COMPLETED AND THE ROADWAY OPEN TO LOCAL TRAFFIC BEFORE WORK SHALL BEGIN ON THE SECOND STRUCTURE.

THE STRUCTURES (MUS-60-00.29 AND MUS-60-0.89) WILL BE CONSIDERED OPEN TO TRAFFIC ONCE THE PROPOSED BOX CULVERT HAS BEEN INSTALLED, PAVEMENT TO THE INTERMEDIATE COURSE HAS BEEN COMPLETED AND THE PROPOSED GUARDRAIL HAS BEEN INSTALLED.

THE CONTRACTOR SHALL SUBMIT, IN WRITING A SCHEDULE OF OPERATIONS TO THE DISTRICT DEPUTY DIRECTOR AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT.

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR THE PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL REQUIRED TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

THE PLANS INDICATE THE MINIMUM SIGNAGE WHICH MUST BE INSTALLED AND/OR MAINTAINED DURING ALL PHASES OF CONSTRUCTION. EXISTING SIGNS OR CONTRACTOR SUPPLIED SIGNES SHALL BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

THE INSTALLATION, MAINTENANCE AND OPERATION OF TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE REQUIREMENTS OF THE OHIO MANUAL AND AS SPECIFIED PER ITEM 614.03, TRAFFIC CONTROL GENERAL. THE APPROPRIATE PERMANENT AND/OR TEMPORARY PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO A STAGE OF CONSTRUCTION BEING OPENED TO TRAFFIC.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFE AND ADEQUATE TRAFFIC CONTROL AT ALL TIMES.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

**ITEM 614, DETOUR SIGNING**

THE CONTRACTOR SHALL SUPPLY, ERECT, MAINTAIN, AND REMOVE ALL OF THE DETOUR SIGNING SHOWN ON SHEET 8. PAYMENT FOR ALL MATERIAL, LABOR, AND EQUIPMENT TO PERFORM THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 DETOUR SIGNING.

**A + B BIDDING**

INSTALL ALL TRAFFIC CONTROL DEVICES NEEDED TO CLOSE AND DETOUR TRAFFIC ON S.R. 60, SEE SHEET 8.

A+B BIDDING CONTRACT TABLE:

USE THE FOLLOWING INFORMATION IN COMBINATION WITH PROPOSAL NOTE 125 A+B BIDDING WITH MULTIPLE SECTIONS.

THE CONTRACTOR WILL BID THE NUMBER OF CALENDAR DAYS TO COMPLETE THE SEGMENT AS LISTED IN THE PROPOSAL.

CONTRACT SEGMENT - LOCATION OF CRITICAL WORK	MINIMUM DAYS	MAXIMUM DAYS	INCENTIVE/ DISINCENTIVE	MAXIMUM INCENTIVE
INSTALLATION OF CULVERT MUS-60-0.29	14 DAYS	21 DAYS	\$2,000/DAY	\$8,000
INSTALLATION OF CULVERT MUS-60-0.89	14 DAYS	21 DAYS	\$2,000/DAY	\$8,000

THE FINAL COMPLETION DATE FOR THE PROJECT WILL BE AS LISTED IN THE PROPOSAL. THE FINAL SURFACE COURSE AND THE STRIPING CAN BE PERFORMED AS A FLAGGING OPERATION.

THE CLOSURE OF S.R. 60 SHALL NOT OCCUR UNTIL AFTER 6/01/2021. S.R. 60 SHALL BE OPENED TO TRAFFIC ON OR BEFORE 8/15/2021.

THE CLOSURES OF S.R. 60-0.29 AND S.R. 60-0.89 SHALL NOT OCCUR AT THE SAME TIME.

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO THE FOLLOWING:

THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS AND/OR LANE CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO)  
BY FAX: (614) 887-4510 OR  
BY EMAIL: D05.PIO@DOT.OHIO.GOV

DISTRICT PERMIT SECTION  
BY FAX: (614) 887-4525 OR  
BY EMAIL: BRIAN.BOSCH@DOT.OHIO.GOV

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION  
BY FAX: (614) 728-4099 OR  
BY EMAIL: HAULING.PERMITS@DOT.OHIO.GOV

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

ANY UNFORSEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER.

**MAINTAINING EXISTING DRIVES**

THE CONTRACTOR SHALL MAINTAIN ACCESS TO RESIDENCES TO THE FULLEST EXTENT POSSIBLE. IT IS UNDERSTOOD THAT FOR SHORT PERIODS OF TIME, THE FULL ACCESS TO DRIVEWAYS MAY NOT BE POSSIBLE. THE CONTRACTOR SHALL MAKE ACCOMMODATIONS TO THE RESIDENT SO THAT DURING SHORT INTERVALS, THE HOMEOWNER CAN STILL HAVE ACCESS TO PARK NEAR THE RESIDENCE.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT U.S. MAIL OR ANY OTHER DELIVERY WITHIN THE PROJECT LIMITS IS NOT DISRUPTED BY CONSTRUCTION OPERATIONS.

**ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)**

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>=2 WEEKS > 12 HOURS & < 2 WEEKS < 12 HOURS	14 CALENDAR DAYS PRIOR TO CLOSURE 7 CALENDAR DAYS PRIOR TO CLOSURE 2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

SR 60 WILL BE CLOSED FOR DAYS INFO:

W20-H13-60

**CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE**

VEHICLES AND EQUIPMENT SHALL ALWAYS MOVE WITH, AND NOT ACROSS OR AGAINST THE FLOW OF TRAFFIC. VEHICLES AND OTHER EQUIPMENT SHALL NOT PARK OR STOP EXCEPT WITHIN DESIGNATED WORK AREAS; AND SHALL NOT ENTER AND LEAVE WORK AREAS IN A MANNER WHICH WILL BE HAZARDOUS TO, OR INTERFERE WITH THE TRAFFIC FLOW. PERSONAL VEHICLES WILL NOT BE PERMITTED TO PARK WITHIN THE RIGHT-OF-WAY EXCEPT IN SPECIFIC AREAS DESIGNATED BY THE ENGINEER.

EQUIPMENT, VEHICLES, AND MATERIALS SHALL NOT BE STORED OR PARKED WITHIN 30 FEET OF THE TRAVELED WAY UNLESS 6 FEET BEHIND PCB OR GUARDRAIL. NO EQUIPMENT, VEHICLES, OR MATERIALS SHALL BE STORED IN THE MEDIAN AT ANY TIME.

ALL WORK VEHICLES AND EQUIPMENT THAT ENTER THE WORK ZONE MORE THAN ONCE A DAY MUST BE EQUIPPED WITH AT LEAST ONE FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT THAT IS VISIBLE IN ALL DIRECTIONS OF TRAFFIC FOR AT LEAST ONE QUARTER OF A MILE, DAY OR NIGHT.



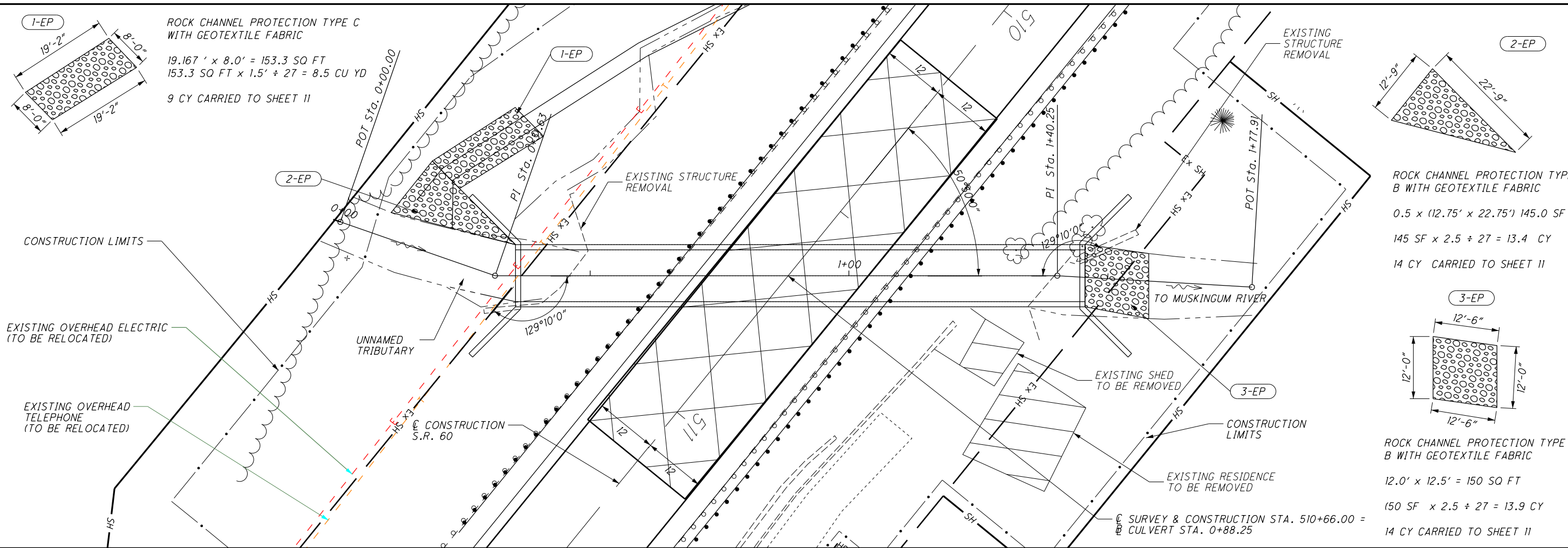
CALCULATED  
RJC  
CHECKED  
HAG

MAINTENANCE OF TRAFFIC NOTES

MUS-60-0.29 / 0.89

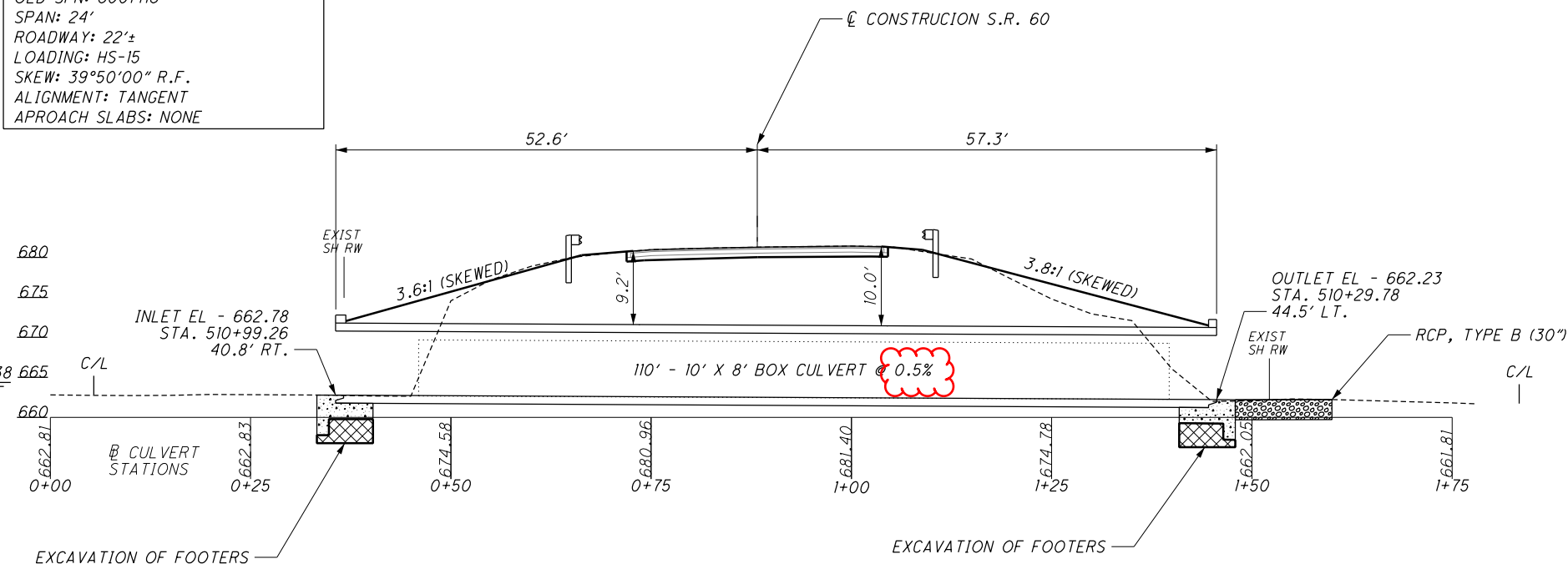
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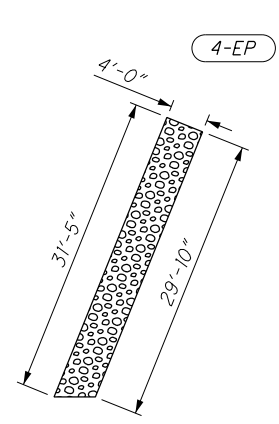
**PROPOSED STRUCTURE**  
 TYPE: REINFORCED CONCRETE BOX CULVERT  
 NEW SFN: 6001417  
 SPAN: 10'  
 RISE: 8'  
 LENGTH: 110'  
 ROADWAY: 2-11' LANES W/1' PAVED SHOULDERS  
 34'± F/F GUARDRAIL  
 LOADING: HL-93  
 SKEW: 39°50'00" R.F.  
 ALIGNMENT: CURVE LEFT

**EXISTING STRUCTURE**  
 TYPE: CAST-IN-PLACE BOX CULVERT  
 OLD SFN: 6001416  
 SPAN: 24'  
 ROADWAY: 22'±  
 LOADING: HS-15  
 SKEW: 39°50'00" R.F.  
 ALIGNMENT: TANGENT  
 APPROACH SLABS: NONE



**HYDRAULIC DATA**  
 DRAINAGE AREA: 557.0 ACRES  
 $Q_{25} - 473.0 \text{ CFS}$   $Q_{100} - 675.0 \text{ CFS}$   
 $V_{25} - 15.52 \text{ FPS}$   $V_{100} - 17.15 \text{ FPS}$

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**1-SS**  
1 EACH - ITEM 611 CATCH BASIN, NO. 2-2B, AS PER PLAN  
53 FT - ITEM 611 15" CONDUIT, TYPE C  
0.27 CY - ITEM CONCRETE MASONRY (SEE STD. DWG. HW-2.1)  
ITEMS CARRIED TO SHEET 11

ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC  
 $(31.417' + 29.833')/2 \times 4' = 122.5 \text{ SQ FT}$   
 $122.5 \text{ SQ FT} \times 1.5' \div 27 = 6.8 \text{ CU YD}$   
7 CY OF ITEM 601 ROCK CHANNEL PROTECTION, TYPE C (18") WITH GEOTEXTILE FABRIC CARRIED TO SHEET 11

**HYDRAULIC DATA**

DRAINAGE AREA: 237.0 ACRES

$Q_{25} - 249.0 \text{ CFS}$     $Q_{100} - 356.0 \text{ CFS}$

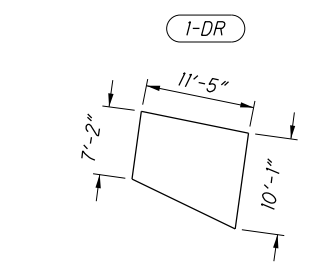
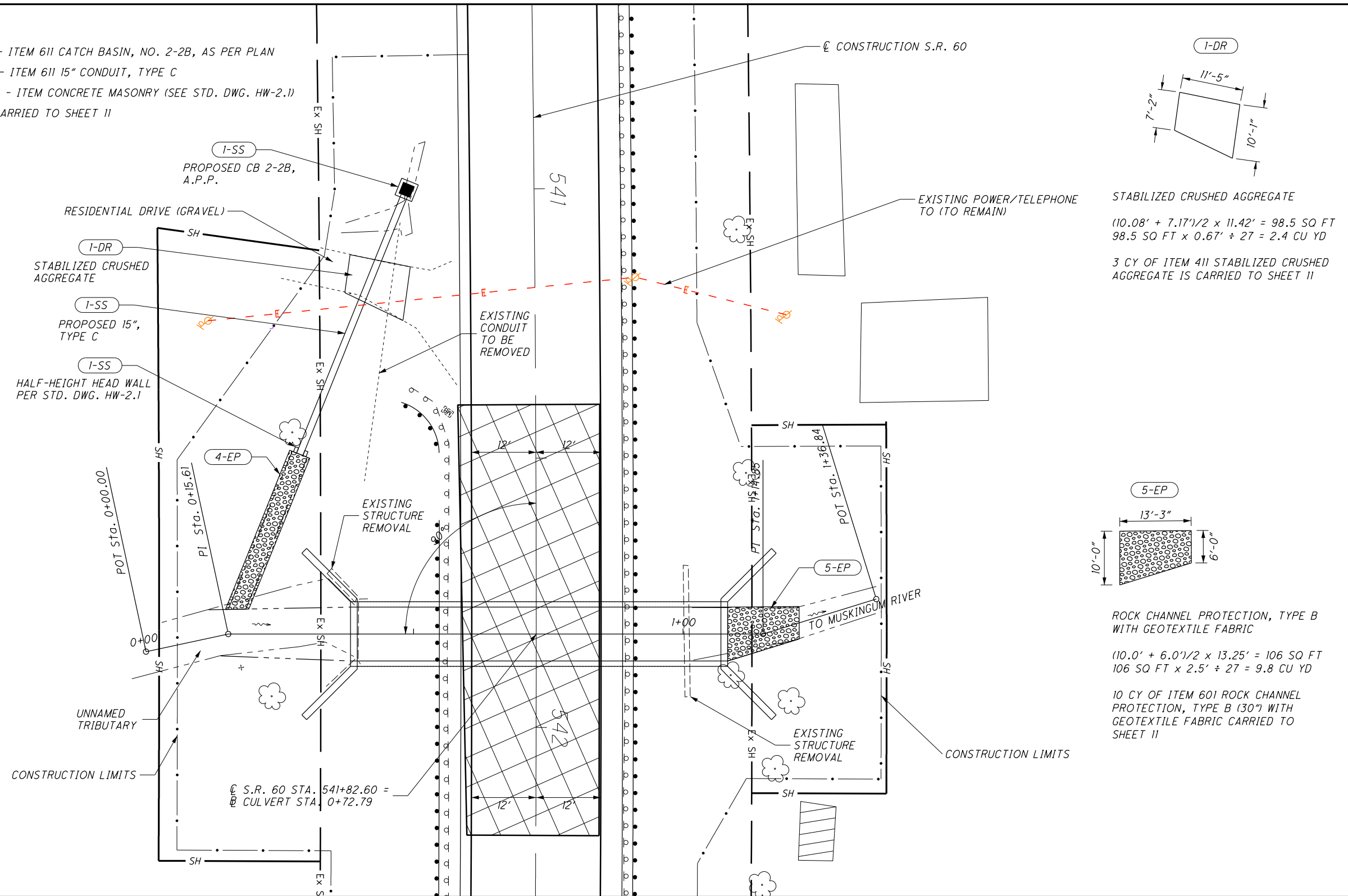
$V_{25} - 9.29 \text{ FPS}$     $V_{100} - 10.47 \text{ FPS}$

**EXISTING STRUCTURE**

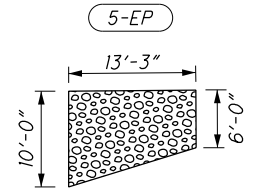
TYPE: CAST-IN-PLACE BOX CULVERT  
OLD SFN: 6001440  
SPAN: 10  
ROADWAY: 22'±  
LOADING: HS-15  
SKEW: 0° (NO SKEW)  
ALIGNMENT: TANGENT  
APPROACH SLABS: NONE

**PROPOSED STRUCTURE**

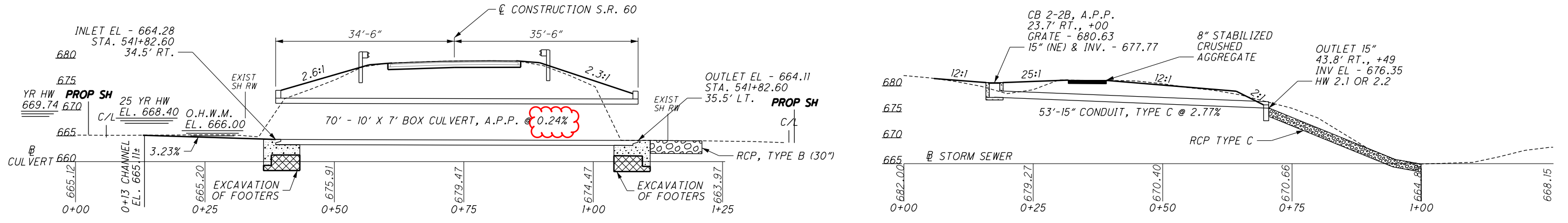
TYPE: REINFORCED CONCRETE BOX CULVERT  
NEW SFN: 6001441  
SPAN: 1'  
RISE: 7  
LENGTH: 70  
ROADWAY: 2-10' LANES W/1' PAVED SHOULDERS  
33'± F/F GUARDRAIL  
LOADING: HL-93  
SKEW: 0° (NO SKEW)  
ALIGNMENT: TANGENT



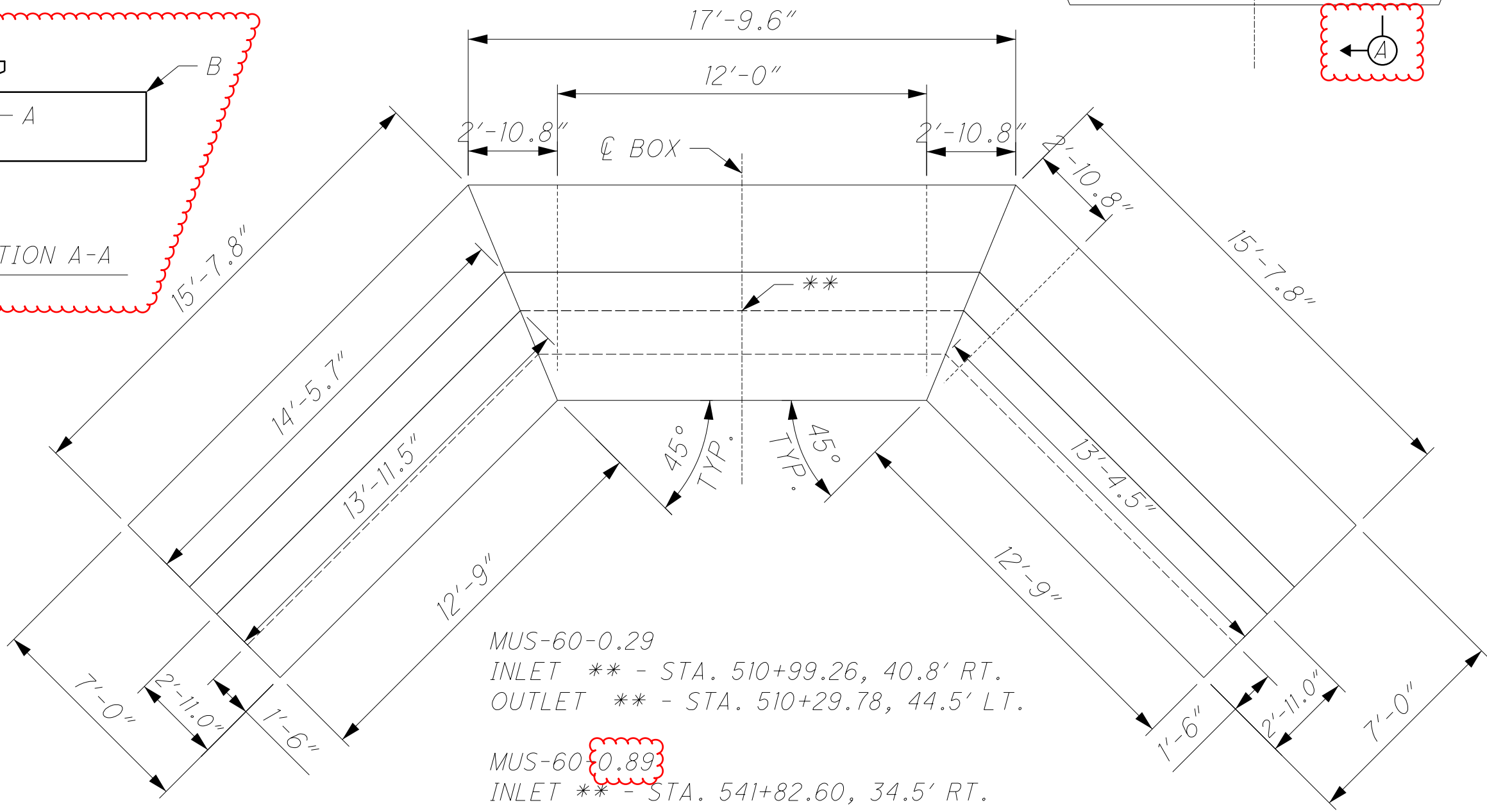
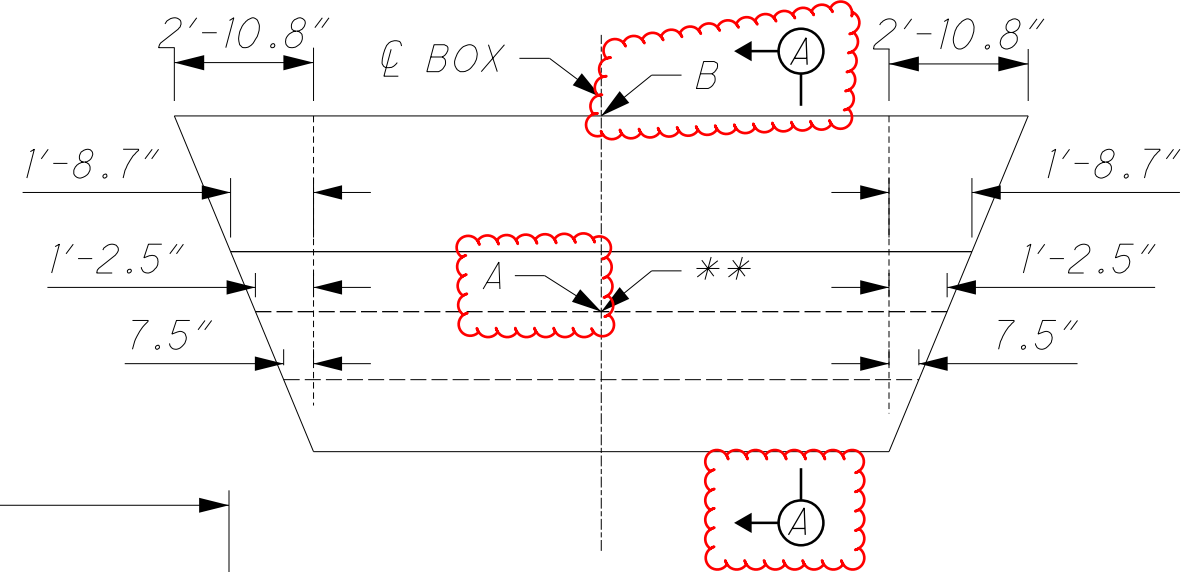
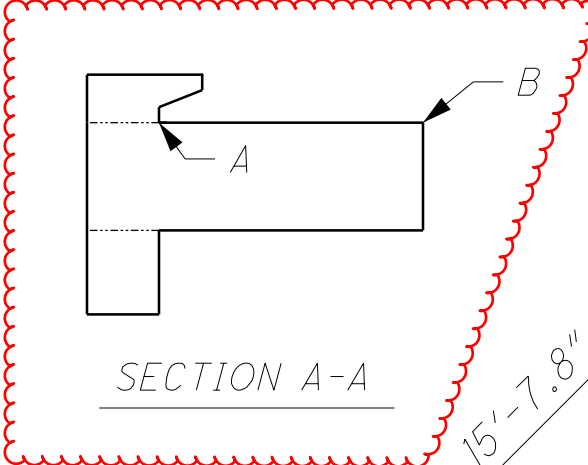
STABILIZED CRUSHED AGGREGATE  
 $(10.08' + 7.17')/2 \times 11.42' = 98.5 \text{ SQ FT}$   
 $98.5 \text{ SQ FT} \times 0.67' \div 27 = 2.4 \text{ CU YD}$   
3 CY OF ITEM 411 STABILIZED CRUSHED AGGREGATE IS CARRIED TO SHEET 11



ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC  
 $(10.0' + 6.0')/2 \times 13.25' = 106 \text{ SQ FT}$   
 $106 \text{ SQ FT} \times 2.5' \div 27 = 9.8 \text{ CU YD}$   
10 CY OF ITEM 601 ROCK CHANNEL PROTECTION, TYPE B (30") WITH GEOTEXTILE FABRIC CARRIED TO SHEET 11



FOOTER ELEVATIONS	INLET	OUTLET
MUS-60-0.29		
ELEV. A	661.78	661.23
ELEV. B	661.76	661.25
MUS-60-0.89		
ELEV. A	663.28	663.11
ELEV. B	663.27	663.12



MUS-60-0.29  
 INLET \*\* - STA. 510+99.26, 40.8' RT.  
 OUTLET \*\* - STA. 510+29.78, 44.5' LT.

MUS-60-0.89  
 INLET \*\* - STA. 541+82.60, 34.5' RT.  
 OUTLET \*\* - STA 541+82.60, 35.5' LT.

NOTE: FOOTERS LOCATED UNDER THE BOX SHALL MATCH THE SLOPE OF THE BOX.

FOOTING LAYOUT PLAN FOR BOTH INLET AND OUTLET  
 (MUS-60-0.29 AND MUS-60-0.89)

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